



Director's Column

William L. Woodfin, Jr

// e are certainly blessed in Virginia to have an abundance of wildlife. From the mountains to the sea, a vast array of birds, animals, and fish inhabit our diverse landscapes and provide all Virginians the opportunity to enjoy these natural resources. To encourage Virginians to learn more about the environment, Governor Jim Gilmore in his State of the Commonwealth address this year announced an exciting new initiative called Virginia Naturally 2000. Designed to promote life-long environmental education and stewardship, this initiative will help youth and adults make better-informed decisions about protecting the environment.

Virginia Naturally 2000 uses technology to provide a substantial range of factual information and educational resources. A special Web site has been developed to provide information about Virginia Naturally 2000 programs including volunteer opportunities, classes, places to visit, community events, watershed maps, lesson plans and recreational activities.

The Governor has recognized the importance of our natural and historic resources to the health of Virginia's economy and to the quality of life. In his Certificate of Recognition he has asked local, state, and federal agencies, environmental organizations, businesses and industry, and all others to come together to support Virginia Naturally 2000. These partners will offer a wide variety of environmental educational programs to all Virginians that will assure the continuation of our rich heritage of conservation in the state.

The Virginia Department of Game



Wild for Wildlife Days held this summer at the Front Royal 4-H Center, respresents one of the many programs designed to help promote the goals of Virginia Naturally 2000. Sponsored by the Virginia Department of Game and Inland Fisheries, the event brought people together from around the state to learn more about Virginia's wildlife, like this peregrine falcon.

and Inland Fisheries is pleased to be part of this new, exciting initiative. Virginia Naturally 2000 gives us the opportunity to enhance our outdoor educational outreach programs. Hunter Education, WildlifeMapping, Project WILD, Becoming an Outdoors-Woman, Family in the Outdoors, Aquatic Education, and Boating Safety are just a few of VDGIF's programs that reach tens of thousands of Virginians each year. Much of the work we do involves educational outreach and provides us with a strong

connection to the goals of Virginia Naturally 2000. By linking Virginians to the environment we are all working toward educating everyone about the importance of his or her actions and how they impact Virginia's priceless natural resources for future generations.

Look for the Virginia Naturally 2000 logo in future issues of *Virginia Wildlife* magazine and on upcoming publications and event promotions to highlight the environmental education aspect of these programs.



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Color separations and printing by Nittany Valley Offset, State College, PA.

Virginia Wildlife (ISSN 0042 6792) is published monthly by the Virginia Department of Game and Inland Fisheries. Send all subscription orders and address changes to Virginia Wildlife, P. O. Box 7477, Red Oak, Iowa 51591-0477. Address all other communications concerning this publication to Virginia Wildlife, P.O. Box 11104, 4010 West Broad Street, Richmond, Virginia 23230-1104. Subscription rate is \$10.00 for one year, \$24.00 for three years; \$1.00 per each back issue, subject to availability. Out-of-country rates are the same but must be paid in U.S. funds. To subscribe, call toll-free (800) 710-9369. Postmaster: Please send all address changes to Virginia Wildlife, P.O. Box 7477, Red Oak, Iowa 51591-0477. Postage for periodicals paid at Richmond, Virginia and additional entry offices.

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Five years after devastating floods destroyed some of Virginia's best trout streams, biologist are making some startling discoveries. See the story on page 4. Photo by Lee Walker.

VIRGINIA WILDLIFE

Cover photo: white-tailed deer (Odocoileus virginianus); ©Bill Lea.

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Dedicated to the Conservation of Virginia's Wildlife and National Resources

VOLUME 61

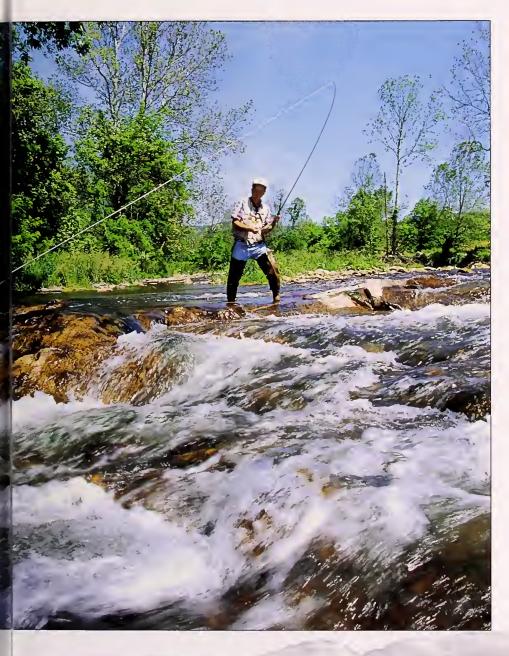






The Day the Mount

Mudslides, floods and debris flows struck the Blue Ridge Mountains and threatened native trout populations.



ains Roared

by Price Smith

o one expected it, not even the "experts." It was June 1995 and it had been raining all week, off and on. Locals living in the shadow of the Blue Ridge Mountains knew it had been an unusually wet week; streams were running bank full, some roads were flooded. A few people had begun to grumble about never seeing the sun shine againtypical reactions to a rainy week. Farmers were pleased, however, because a steady, soaking rain is a blessing during the summer, the corn looked great and emerald green pastures hinted at abundant hay reserves and fat livestock.

Then, without warning, the skies opened and it poured. By midmorning on the 27th four inches of rain were falling per hour. In isolated hollows and valleys of the Blue Ridge as much as 30 inches of rain may have fallen in just 16 hours. Tributary streams jumped their banks and disgorged their loads into already swollen rivers. Those rivers became loud and angry. On steep mountainsides thin soils became saturated, lost their tenacious grip on bedrock and cascaded down the slopes into streams and rivers. Mixing with floodwaters, the mudslides formed a turbulent mix of water, soil, and rock-debris flows. Down the mountain hollows roared this slurry from hell, on a rampage that buried, pulverized, or washed away everything in its path.

For hours this relentless storm pounded the mountains, then slackened and quietly slipped away. Seven people died statewide, a terrible legacy for this unnamed storm. However, most residents were miraculously spared. Much of the

Far left: After five years the counties of Albemarle, Green, and Madison still show scars from one of the most devastating rainstorms ever to bit that area of Virginia. Above: Streams that were renowned for their excellent trout fishing were virtually wiped-out of all aquatic life.

loss was restricted to property, livestock, and aquatic life. The Shenandoah National Park was hit especially hard. After the rains ended and the floodwaters receded, observers flying over the Park saw the ugly scars of hundreds of mudslides. The forest canopy that had covered many pristine mountain streams had been plowed away by debris flows, leaving broad valley floors resembling moonscapes. Observers found little, or no life in the remnants of once idyllic, native trout streams. Bedrock and rubble were fouled with a red and black smelly slime. Fish had vanished from streams that historically had been home for as many as 500 trout per acre. In a section of the North Fork of the Moormans River, near the Park's lower boundary, only one trout was recovered three weeks after the flood. Recovery seemed years away, perhaps even decades.

How is such devastation reversed, streams restored, and forests rejuvenated? Experts from Shenandoah National Park (locally known as "The Park"), the Virginia Department of Game and Inland Fisheries, and many other agencies pondered what steps, if any, should be taken. The magnitude of the destruction was immense and the chore facing the experts was daunting, but the decision was quickly made to first determine the extent of the damage. Everyone also agreed that no action would be taken in the Park to artificially restore habitat—no fish stocking, no pool forming devices constructed, no trees planted. Man would stand back and observe the natural healing process, no matter the time frame.

This plan of action, or "no action," was not as radical as it first appeared. Devastating floods and debris flows have ravaged the same mountains throughout history and the forests and wildlife have always returned. Events like these had occurred throughout the Appalachian Mountains at least 52 times over the last 150 years and countless times over the last 30 to 40 thousand years. These events shape mountains and

the Appalachians are today the result of such erosional processes. This time, too, the forest would return, fish would migrate from other sections of stream, and all would again be well in the Park.

At least that was the plan. Time was the necessary ingredient. In the absence of flooding, debris flows, and drought, streams would recover and the forests would be restored in perhaps 20, maybe 30 years. Researchers were excited. This was an opportunity to closely watch nature heal and restore. It would be like watching the natural process of revegetation and rejuvenation after the Mount St. Helen's eruption, albeit on a much smaller scale. In the Park entire rivers and their watersheds would become natural laboratories, a testing ground for nature's restorative process.

Researchers were initially faced with the problem of determining the extent of the damage. Much of the





available historical data targeted fish populations as indicators of the health of a stream. Native brook trout had been the dominant predator fish in these streams and logically they became a preferred target species for study after the flood. The number of trout collected in a stream after the flood would be compared to old records spanning 15 to 20 years. A "normal" population of trout would be the average number of trout collected historically.

Three streams in Madison and

Top: Portable backpack electrofisher. Above: Since the big flood of 1995, biologists from the Shenandoah National Park Service and the Virginia Department of Game and Inland Fisheries, along with assistance from many other agencies, have been monitoring rivers like the North Fork of the Moormans River annually. Right: To everyone's amazement many fish species, including the native brook trout, are showing signs of recovery. Photos by Lee Walker.

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Albemarle counties; the Rapidan, its tributary the Staunton, and the North Fork Moormans would be monitored annually by electrofishing—a technique used to collect fish. In 1996, one year after the flood, sampling began. Fish populations in each stream were sampled in at least three different locations from the headwaters downstream to the Park's boundary. Although most results were expected, some were shocking. Fish populations appeared little affected in the headwaters where streams had only been flooded. Downstream, in areas impacted by both flooding and minor debris flows, trout populations were severely reduced. At Park boundaries, massive debris flows had destroyed practically all fish. For the first two years no trout were collected on the Staunton and Rapidan rivers at these lower Park boundary sites. Debris flows had reshaped the land, killing all wildlife in their fish dominated populations. In 1997, throughout Virginia, reproduction and survival of newly hatched trout was the highest ever recorded and the three study streams were no exception. Young fingerling trout made up 70 to 80 percent of the total population in many of the stream sections. It was expected that as these young fish matured, the population structure (juvenile versus adult ratio) would soon resemble that of an old established stream.

Such a rapid recovery in trout populations from 1996 through 1998 surprised everyone. Brook trout appeared to be extremely resilient. With favorable weather and abundant cold water, trout populations apparently can rebound very quickly. The outlook for the three streams looked rosy.

Then drought struck and hopes were dashed. A late summer drought in 1998 and severe drought

numbers so common in trout populations.

Droughts can really be a problem for trout. Unlike the swift impacts from floods and debris flows, the effect of drought is very slow, more methodical. Low water causes fish to become crowded in pools. Predation skyrockets and many fish die, particularly small, young fish. Also, reduced stream water is heated by ambient air and direct sunlight, as was the case in the lower sections of these denuded, debris flow impacted streams, and cold water fish, such as trout, become stressed and may die. Only reforestation of the lower, exposed sections of these streams can lessen the impact of extreme droughts and allow the highly resilient trout populations to remain more stabile.

By studying trout populations in these three natural streams before and after the flood, important facts have been revealed. One, light to moderate flooding does not always adversely impact native brook trout. Two, debris flows are another matter—trout in vast sections of streams can be completely wiped out. Three, trout are surprisingly resilient their numbers can rebound in a very short period of time-time measured in years, not decades. For these three rivers the trout populations are on the way to recovery, a recovery that may take a lot of time to complete. Expect oscillations (highs and lows) in the trout populations due to weather extremes. Expect population swings to be severe until the stream habitat, in particular the surrounding forest canopy, is restored and protects the streams.

What is the long-term prognosis? Definitely optimistic! In a world seemingly filled with daily news of one catastrophe after another, it is reassuring to know that Virginia's brook trout can overcome horrendous adversity and spring back from the brink of disaster. It's a good thing!



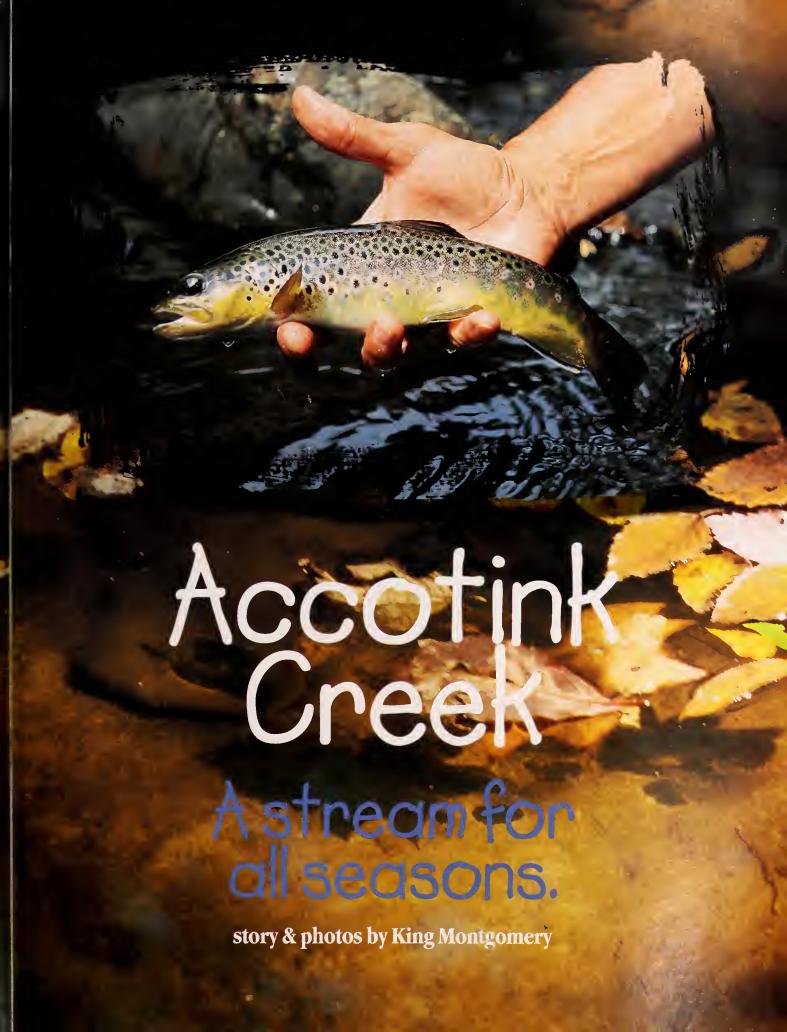
wake. Fish had been churned into oblivion and fish populations, as humans had grown to expect them, had to begin anew.

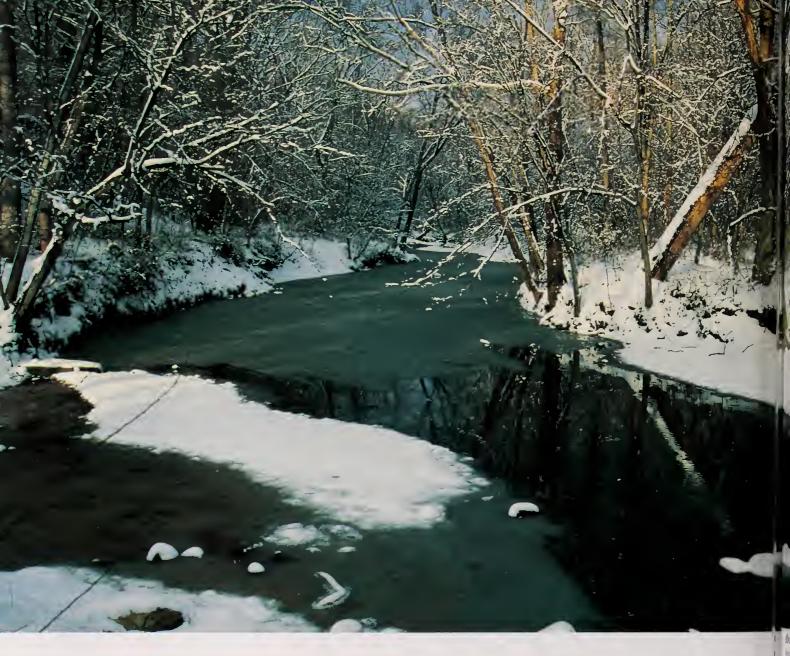
In only two years the sampling crews brought back startling news. Trout populations were on the rebound. Mild winter weather and wetter than normal summers had apparently enabled trout and other fish species to migrate into devastated areas and successfully reproduce. The number of trout had swelled to "normal" although small, young

throughout the summer of 1999 caused another precipitous drop in the number of trout. The reductions occurred in the same sections of streams that had been denuded by debris flows just three years earlier. This drop in trout numbers was inevitable. The favorable weather of the previous two years had been a lucky break. Now, the mountains and the streams were to experience the inevitable swing toward more harsh weather. The trout would undergo the see-saw oscillation in

Price Smith is a senior fisheries biologist with the Virginia Department of Game and Inland Fisheries.







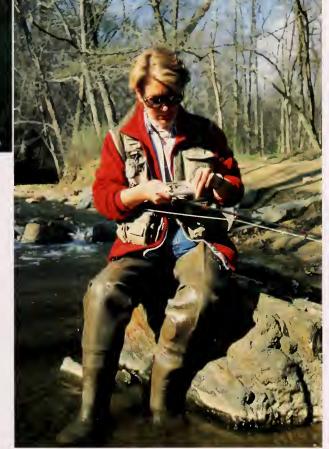
he orange line arched delicately through the misty morning air and delivered the tiny nymph to the seam of slower water along the far, undercut bank. A great blue heron squawked disapproval and took wing as a 13-inch rainbow trout inhaled the fly, jumped once, and headed downstream. At the disturbance, squirrels abandoned their foraging on the forest floor, and scurried to the sanctuary of the majestic oaks. High above a bald eagle, probably from one of the nearby wildlife refuges, surveyed the area with apparent disinterest. A pristine creek in the Shenandoah Valley or a remote free-flowing stream in southwestern Virginia? No, this scene takes place regularly in one form or another in the middle of Northern Virginia along the Capital Beltway, a few miles from Washington, DC.

Most people from other parts of the Commonwealth think of Northern Virginia as an asphalt, trafficsnarled suburb of the nation's capital, but that image is not a complete picture. From the air, Northern Virginia appears not only as buildings and roads, but also as a landscape of rolling, tree-covered hills, wooded parks, meandering streams, lakes, and ponds. Many of these waters provide for picnicking, hiking, birdand animal-watching, and fishing.

Several small streams and ponds, near such towns as Springfield, Alexandria, Falls Church, and Arlington, are periodically stocked

with trout by the Virginia Department of Game and Inland Fisheries (VDGIF). My favorite of these little urban jewels, both for the quality of its angling and for its scenery throughout the year, is Accotink Creek in Annandale. Named a Delayed Harvest Regulation Stream in 1996, Accotink begins at Daniels Run near Fairfax City, reinforced by a spring that bubbles up out of the ground near Fairfax Inova Hospital. It flows into and out of Lake Accotink in Springfield, and winds its way through Franconia, Newington, and Fort Belvoir before emptying into the tidal Potomac River at Gunston Cove. The near two mile stretch from Route 236 (Little River Turnpike) to Route 620 (Braddock Road) is the designated Delayed Harvest area. Below the dam at Lake Accotink, the Fairfax County Park Authority (FCPA) maintains a putand-take, fee-fishing section of the creek stocked with large rainbow

Above: Accotink Creek is a beautiful place any time of the year. Right: Suzanne Malone, a regular visitor, contemplates the selection of a fly. Upper right: Virginia Department of Game and Inland Fisheries biologist, John Odenkirk, gently releases brown and rainbow trout.



The Beginning

This first stocking of Accotink Creek was in the fall of 1996. John Odenkirk, a VDGIF senior fisheries biologist from the Fredericksburg Regional Office, supervised the operation. The rest of the team consisted of Frank Spuchesi (now a warden in Westmoreland County), and two



area game wardens, Lieutenant Phil Parrish and Sergeant Randy Grauer, who periodically patrol the new creek after the trout are stocked. All carried the heavy buckets of water and trout, while I helped by doling out encouragement and taking photographs.

The stocking truck held brown and rainbow trout from the Wytheville Hatchery, although fish now come from the Montebello Hatchery. The fish were gently netted and transferred to 5-gallon plastic buckets, which were quickly carried to the creek, sometimes about 50 yards away, through underbrush, and released into the water. The fish, initially startled by the proceedings, finned near the bank for awhile, then slowly moved deeper into their new home, vanishing from sight.

The truck slowly made its way from north to south along a trail and the power company access road. The VDGIF crew shuttled trout from tank to bucket to creek along the entire 1.9 mile length of the delayed harvest area. Once empty of trout, the truck and the VDGIF contingent departed. I leaned against a tree and watched several fish contentedly hovering in the clear shallows.

The next spring, Odenkirk and Spuchesi sampled the trout population using a portable, back-pack electrofishing apparatus. We were surprised to find so many healthy trout in the low, warm water. They were mostly browns, known to be tolerant of warmer water and other extreme conditions; they were lurking in the deeper pools and along the undercut banks. Small sunfish and various minnows also surfaced during the census and, like the trout, were quickly released after they recovered from the electric stun.

Something for Everyone

Virginia's Delayed Harvest Trout Streams satisfy both catch-and-release advocates and bait anglers who want to take home a mess of trout for the frying pan. Catchablesize brown and rainbow trout are stocked in the fall, winter, and early spring. Catch-and-release anglers are accommodated from October 1



Frank Spuchesi shocks and John Odenkirk nets during electrofishing operations on Accotink Creek, which allows them to monitor the condition of the fish.

through the following May 31, when only single hook lures or flies may be used, and all fish captured must be immediately released. June 1 through September 30 is the putand-take time for the creek, and trout may be creeled according to general trout regulations.

The creek is accessible to anglers at both its north and south ends near the Capital Beltway. From the north, take Pineridge Road off of Little River Turnpike (Route 236) and park where it terminates on Accotink Parkway; or take the Parkway up a hundred yards and park at the Americana Park baseball field. A trail runs along the creek on both sides and anglers will share the paths with joggers, birders, trail bikers, and many dogs walking their owners. Access and parking on the south side is at the Wakefield RE-Center run by Fairfax County. The center is off Braddock Road, with a large sign announcing its presence. I have walked the entire length of the creek along its trails, and find it a great place to get away from the hustle and bustle of busy Northern Virginia. The sounds of nature overpower the murmur of the nearby beltway; jetliner contrails fade into natural cloud formations.

Suzanne Malone, a naturalist with the Fairfax County Park Authority at Huntley Meadows Park near Alexandria, also enjoys fly fishing, and Accotink Creek is her home water. While fishing this past spring, we took a break and sat alongside the creek, and she told me about the stream from a naturalist/fly angler point-of-view. Apparently the early Native American Dogue Indians gathered quartz along the creek's banks and probably hunted and fished its spring- and runoff-fed waters. I am told that the name "Accotink" in the Algonkian language means "at the end of the hill." I'm not sure what hill the phrase refers to, but I suspect it could be where the spring wells up from the ground near Fairfax Inova Hospital.

Unfortunately, little is known about the earliest inhabitants of the area because succeeding genera-

tions of settlers have tilled and eventually paved over most of the history of the region. Fortunately, Accotink Creek lies in a flood plain and, at least under current zoning regulations, is not subject to development. How long that will last, however, is anyone's guess. I would hate to see our few remaining natural oases disappear, but unless we safeguard them, that unsavory result is a real possibility.

Suzanne points out that over 200 species of birds have been cataloged along the creek. Reptiles and amphibians abound, typically snakes, lizards, frogs, and toads. Mammals along the flood plain include whitetail deer, red fox, beaver, muskrat, opossum, raccoon, rabbit, and various field mice and other rodents. Staff and volunteers at the FCPA's Hidden Oaks Nature Center, in Annandale, conduct popular nature walks along the creek north of the Delayed Harvest section. Armed with binoculars, cameras, fanny packs, and bottled water, urbanites can get a taste of what the flood plain, lush in water, trees, and critters, has to offer.

The Stream reel

The Northern Virginia Chapter of Trout Unlimited (NOVA TU) works closely with VDGIF and John Odenkirk in watching over Accotink Creek. NOVA TU members help with trout stocking chores, electrofishing, and keeping the stream clear of trash and debris. NOVA TU volunteers also work to improve stream habitat and conduct angling surveys to collect data used to help manage the fishery. Interestingly, the surveys show that relatively skilled anglers can expect to catch a trout every 30 or so minutes, even up to two months after stocking. That's a great catch ratio anywhere.

I asked John Odenkirk about this little gem of a stream. "The great thing about Accotink is that you are literally fishing under the Beltway, and if it weren't for the dull roar of the traffic, you'd never know it. The well-vegetated flood plain and in-

stream habitat give the angler the illusion of being far from the city, yet it's all here: trout, deer, wood ducks, and the like."

I've fished and photographed Accotink year-round and each season brings its distinct personality and charm. It brings me a sense of peace and balance us locals always seem to need, and a sense of gratitude for what we have. If we can keep areas like Accotink Creek in our metropolitan communities, perhaps there is hope for us yet.

Freelance outdoor writer, King Montgomery, lives about five minutes from Accotink Creek, and prowls streamside with bamboo fly rod and Nikon camera. He is a frequent contributor to Virginia Wildlife.

Weoctink Cre-M

VDGIF Regional Office in Fredericksburg (540) 899-4169.

Poacher hotline: if you see someone taking trout out of season or using unlawful equipment 1-800-237-5712.

Fairfax County Park Authority: General Information (703) 324-8700.

Wakefield RECenter (703) 321-7080.

Lake Accotink-(703) 569-3464.

Hidden Oaks Nature Center (703) 941-1065.

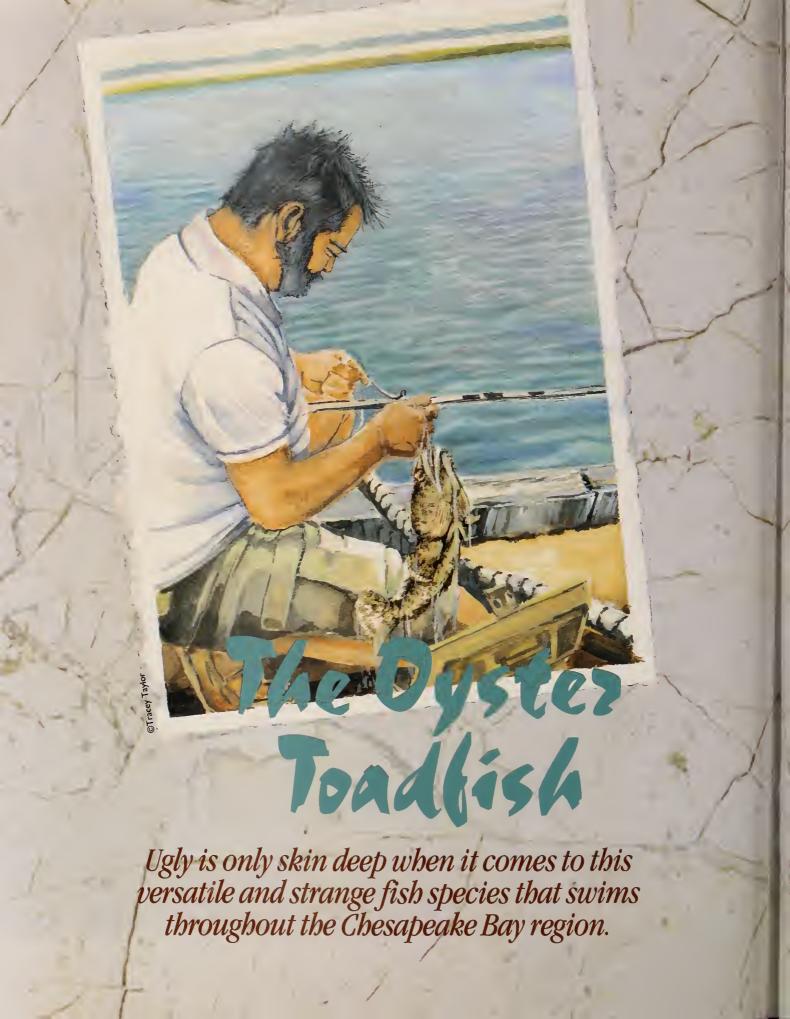
Northern Virginia Chapter of Trout Unlimited:

President Mike Daly (703) 754-8954, Vice President Jay Lovering (703) 734-1558, and Stream Projects Chairman Tom Guffain (703) 620-9734.

See the NOVA TU Web site at http://www.his.com/troutva.

Trout Unlimited's mission is to conserve, protect, and restore North America's trout and salmon fisheries and their watersheds. TU is a non-profit organization with 100,000 members in 455 chapters nationwide. For information, call (703) 522-0200 or visit http://www.tu.org.





by Steve Mitchell

he little known oyster toadfish is one of the meanest, ugliest fish in Virginia. More than one unsuspecting Chesapeake fisherman has lost a finger to this aggressive fish, which has been described as having a face only a mother could love.

Opsanus tau, as scientists refer to the fish, grows to a length of 15 inches and a weight of several pounds. Found in brackish water around the Chesapeake Bay region, the toadfish is a bottom dweller and lives close to shore among rocks and weeds. It spends most of its time sitting motionless in its burrow (crevices next to rocks, glass jars, or even old shoes) and is often referred to as lazy. But don't confuse lazy with passive.

It is known to be a vicious predator and when prey, such as crustaceans or fish, happen by, the toadfish strikes out with deadly precision, seizing the prey in its mouth and swallowing it whole.

The oyster toadfish probably gets its name from the fact that it is often found in oyster beds and its scaleless skin resembles a toad in both color and texture.

The most remarkable thing about the toadfish is that it possesses one of the fastest muscles ever seen in any fish, mammal, reptile, or bird. The sonic muscle, as it is called, wraps around the swimbladder and can contract at speeds of over 500 times a second! In contrast, the fastest human muscles can only go about 30 or 40 times a second.

The toadfish uses the incredibly fast sonic muscle to produce its characteristic "boatwhistle," a mating call the males make from April to October to attract females to their burrows. Although some describe this call as sounding like a foghorn,

Dr. Michael Fine, a biologist at Virginia Commonwealth University in Richmond, Virginia, who has studied the fish for over 20 years, says that it sounds more like a "boop." He notes that the "boatwhistle" can't be heard above water, but "if your ear is near the side of a boat or a piling on a dock, it is possible to hear them."

Although its flesh is said to have an excellent flavor, the toadfish has no commercial or sportfishing value in the U.S. because most people are too repulsed by its slimy, grotesque appearance to consider eating it. However, Fine says that at least one company catches the fish here and exports it to China.

You might not suspect it to look at these ugly, lethargic fish, but the males are actually good parents. Once a female lays eggs in a male's burrow, the male will guard the eggs until they hatch and provide parental care for the young toadlets for three or four weeks afterwards.

The toadfish also is renowned for its amazing vitality. "I have seen them bake in the hot sun for a couple of hours," Fine says, "dry out and look dead, and then swim away after several seconds when thrown back into the water." He adds that one scientist "used to roll them up in moist newspaper, put them in the fridge, and they would apparently stay alive for some months."

Indeed, very little seems to bother the toadfish, and it can even survive in polluted waters. And because of its amazing vitality, a recent flight of a NASA space shuttle carried four toadfish onboard as part of a scientific study on the effects of space on the human nervous system.

So if you ever happen to accidentally hook a toadfish, watch your fingers and remember that there's more to this fish than its ugliness.

Steve Mitchell is a freelance wildlife photojournalist and has a Master of Science Degree in Biology. He lives in Manassas, Virginia, with his dog Coltrane.



The oyster toadfish is a vicious predator with incredibly fast sonic muscles that allow it to strike out with deadly precision. Because of its amazing vitality, scientists have found it to be a very interesting species to study. Photo ©Steve Mitchell.



Montebello, Virginia, was the scene for this innovative workshop offered by VDGIF. Trainers, local communities, and future anglers will all benefit.

story and photos by Marc N. McGlade





Cach

Representatives from 4-H (Head, Heart, Hands, Health), public school teachers, D.A.R.E. (Drug Abuse Resistance Education) Officers, recreational therapists, parks and recreations staff, Boy Scout leaders, and fly fishers from Trout Unlimited all participated in the Teach'n Fishing Trainer Workshop.

& Aquatic Resource Education Program (SAREP) has a multi-layered system in place that includes train-the-trainer workshops, leader training workshops, advanced specialty workshops, and student level programming assistance.

Why is there such an interest in teaching fishing? The participants agreed that fishing education is good for people and good for the environment. Fishing education isn't just about teaching the mechanics of catching fish; it's also learning about oneself, the importance of a healthy environment, and how to live an environmentally healthy lifestyle.

The best part of fishing, perhaps, is that it knows no age, gender, or physical limitations. It's a great activity for young and old—and for the entire family. Fishing is a solid, wholesome thing to teach people, and to bring them in touch with the environment. Getting a rod and reel

Fishing

any people certainly love to talk about fishing, but how many people do you hear talk about teaching fishing? Well, for 25 people, teaching fishing was the topic of instruction at a weekendlong training workshop sponsored by the Virginia Department of Game and Inland Fisheries (VDGIF). Montebello's breathtaking scenery provided the backdrop for the Teach'n Fishing Trainer Workshop, held March 31-April 2, 2000, at the Camp Blue Ridge Conference Center.

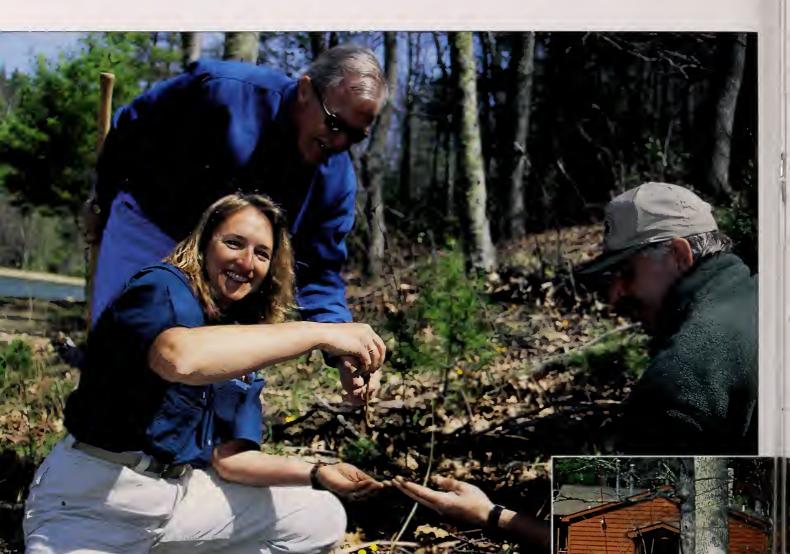
VDGIF recruited individuals from around the state and from diverse backgrounds to participate.

There were 4-H agents, science teachers, physical education teachers, D.A.R.E. (Drug Abuse Resistance Education) Officers, recreational therapists, parks and recreation staff, Boy Scout leaders, and fly-fishers from Trout Unlimited.

Their ambition? To become Regional Sportfishing Education Trainers for the Department's Sportfishing Education Program. As regional trainers, they will return to their respective regions to promote sportfishing education and provide leader training workshops that will teach others how to set up and teach fishing to students. The Sportfishing

into peoples hands can create a great appreciation for our natural environment.

Michael Holson, a vocational instructor for the Department of Correctional Education, spoke enthusiastically about the potential for incorporating angling education into correctional education. "Some of our youth," he said, "have a difficult time learning with traditional teaching methods. With the Angling Education Program you can teach science, physical education, and lifelong leisure skills in a non-traditional setting that would be both fun and successful for those students."



Michael's wife, Karen Holson, was one of the recreational therapists who attended the training. She added, "In my profession, leisure education is the prime ingredient we use to teach people how to achieve a balanced lifestyle. I've used fishing with people of all ages, and it has proven to be an absolutely motivating and effective subject area to teach."

The heart of the trainer workshop is VDGIF's Sportfishing Education curriculum—the Basic Angling Education Series. It currently boasts 13 teaching modules and is grounded in activity-oriented, hands-on activities to help teach beginning anglers about fish, fishing, and the aquatic

environment. Formal and non-formal educators alike can use these activities in the development of fishing clinics, clubs, camps, and courses.

"Our trainers need to be well acquainted with the activities so that they can teach prospective leaders how to use the curriculum to teach fishing," said Dana Roberts, the Sportfishing Education Specialist for VDGIF. "So," she added, "we immerse them in the curriculum for a full day."

Trevor Ruble, an elementary education teacher and facilitator for the SAREP, added, "We have the trainers participate in activities to give them practical experience. Inevitably, there is a lot of laughter,

Top: Anne Skalski-Windle, Aquatic Education Coordinator for VDGIF and ber teammates went digging for bait. Above: The busband-wife team of Michael and Karen Holson demonstrate the basic overband cast.

fun, and learning that occurs. At the day's end, the participants have experienced unique and engaging ways to teach such topics as fish identification, fish anatomy, fish senses, safety, bait and lure selection, capturing and keeping live bait, casting, regulations, ethics, fish preparation, and more."

The evening hours at the workshop were no less captivating. There was a casual mix of educational activities, prop making, and developing camaraderie. Participants played fish bingo, fish darts, and fish jeopardy, and made crinkle can fish, bass cups, fish prints, and fish soap. The weekend concluded on Sunday with a half-day of administrative issues and regional team planning.

At graduation the comments by both staff and participants left nothing to the imagination about the job that lies ahead for this team and the camaraderie that has been developed to move them forward. "The ultimate goal of the SAREP," said Anne Skalski-Windle, the Aquatic Education Coordinator for VDGIF, "is to reach people through fishing. We want educators, civic organizations, youth organizations, sportsmen's groups and the like to teach fishing in their communities. This team now understands that there's more to fishing than just catching fish, and much more to catching fish than just fishing."

Angling education is a broad topic that can be applied in many situations. VDGIF wants others around the state to embrace the idea that fishing has a lot to offer from an educational standpoint. They have hand selected this team of people to act on their behalf as ambassadors for angling education and are confident that these people are going to do a dynamic job.

The husband-wife team of Michael and Karen Holson summed

up the workshop by saying, "By participating in the workshop, we've been motivated to promote fishing to others in our respective fields. We're able to talk about fishing from an entirely new and exciting angle, plus we now feel confident that we can both promote and teach fishing because of the excellent support system of people and materials that is in place."

Mission accomplished. \square

Marc McGlade is a free-lance writer and photographer for national, regional, and local magazines, and newspapers. He's also a fishing instructor and lecturer. Marc resides in Midlothian.

If you would like additional information on the Sportfishing & Aquatic Resource Education Program, contact Anne Skalski-Windle at 804-367-6778, or check out their Web site at www.dgif.state.va.us/fishing/sarep/index.html.





Left: Trevor Ruble, from Roanoke, demonstrates one method of gathering crickets for bait. **Above:** Mike Ostander, of Richmond, gathers bait with a cast net.





If you're looking for a winner, try investing in the future by putting "stock" in your community.

by Anne Skalski-Windle photos by Lee Walker

ave you mentioned the phrase "investing for the future" to anybody lately? If so, it likely brought up a conversation about accumulating wealth through 401K plans, IRA's, mutual funds, and stocks. Now try adding "of fishing" to the end of that phrase and

see what happens. When it comes to "investing for the future of fishing" the conversation will likely take a turn to talking about some very different types of capital assets (long-term investments), returns on investments, and market trends.

The fact of the matter is, sportfishing isn't enjoying the bullish market trends that we've become accustomed to seeing in the stock market for the past several years; many children today are simply not growing up fishing, and, as a result, participation in fishing overall is slowing. Like Social Security, fishing is going to need a shot in the arm if it's going to be there for future generations. We're going to have to diversify the investment portfolio if we want to give more people the opportunity to fish

So why are less people fishing these days? There seem to be many factors that contribute to the bare market that fishing is experiencing. One obvious factor is that more and more people are living in metropoli-



A multi-level partnership was established between VDGIF, S & K Menswear Store, Virginia State University, Virginia Randolph Community High School, King William County High School, and Shakespeare Fishing Tackle to help kick off this years Governor's Angling Extravaganza and a new innovative program called the Partnership Pond Project (PPP). Back row, l to r: Albert Reid, Virginia State University; Anne Skalski-Windle, VDGIF; and Robert Nester, King William County High School. Front row, 1 to r: Ron Southwick, VDGIF and Lamar Vessels, King William County High School.

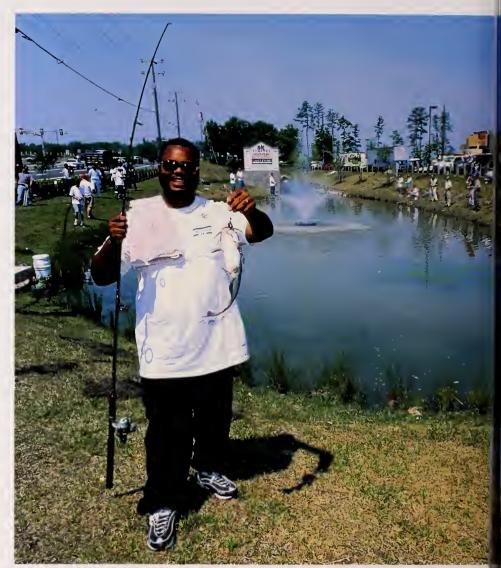
tan areas, away from the natural areas that typically provide fishing opportunities. The resultant travel distance to these areas creates a time barrier that makes choosing more accessible forms of urban recreation a suitable alternative for many people. This decrease in close-to-home fishing opportunities for urbanites and suburbanites, combined with a lack of opportunity for people to learn how to fish, seem to be primary culprits. So, to get people outside fishing we need to invest in places where people can go fishing close to home in our metropolitan areas and in teaching them the skills to participate.

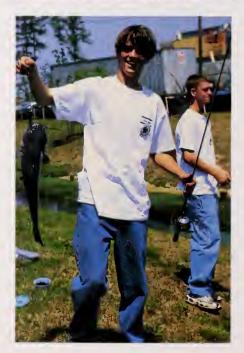
The Fisheries Division, of the Virginia Department of Game and Inland Fisheries (VDGIF), felt that with a little innovation and partnership efforts these two hurdles could be overcome. The proof, however, is in the pudding. So, a unique pilot program, given the working name of the Partnership Pond Project (PPP), was born. It is based on the idea of using the storm water retention ponds on private business

properties for fishing.

Stormwater retention ponds are those bodies of water you see next to store parking lots, incorporated into apartment complexes, fenced off behind malls, etc. They are required for all major developments and can be seen cropping up everywhere in the urban and suburban landscape. The idea of possibly using these for fishing, although a rather uncanny idea for the typical angler to imagine, soon gained momentum as some rather aesthetic ponds were identified.

A multi-level partnership was readily established between VDGIF, S&K Menswear Store, Virginia State University, Virginia Randolph Community High School, King William County High School and Shakespeare Fishing Tackle. A nicely landscaped stormwater retention pond at S&K Menswear Store, in Richmond's West End, was targeted as the location for the pilot project. Water samples revealed conditions suitable for the survival of catfish.





Students and teachers from Virginia Randolph Community High School were treated to a great day of fishing. Through a unique aquaculture program, VSU supplies small catfish to King William County High School where students raise them to marketable size. S & K Menswear purchased some of the catfish to stock in one of their storefront ponds.

The corporation willingly volunteered the use of their pond for a school group-fishing trip.

S&K Menswear also agreed to purchase catfish to stock the pond. The supply of catfish would be purchased from students in the aquaculture class at King William County High School. Aquaculture students around the state are provided with fry (recently hatched fish) each



dents there would get to learn how to fish! Physical education teacher, Julie Ballowe, received instruction and classroom materials through VDGIF's Community Angling Education Project that enabled her to conduct a course in fishing. With the help of a grant, the field trip was planned and rods and reels were purchased. Through Shakespeare Tackle Company's Organizational Youth Program the school was able to purchase factory direct rods and reels at discount prices.

The stage was set. The students rolled in for a three-hour fishing trip that yielded a set of returns atypical of the usual investment. There were fish caught. There were screams of exhilaration. There were smiles, laughter, and kids outdoors fishing. There was a sense of pride and accomplishment among the partners that only intangible returns like this can provide. It was a sense of community...people, businesses, and



Through public and private partnerships angling opportunities like this will continue to insure that future generations will have a chance to enjoy the wonderful pleasures that this sport brings.

If your business or corporation has a pond on its property, you too may want to consider the "option" of putting "stock" in your community.

Anne Skalski is the Aquatic Education Coordinator for the Department of Game and Inland Fisheries.

Here are a few investment tips that are sure to give you high returns:

Community Angling Education Project Virginia Department of Game and Inland Fisheries

Anne Skalski-Windle, Aquatic Education Coordinator 804-367-6778 www.dgif.state.va.us

Youth Aquaculture Program
Virginia Cooperative Extension Service
Virginia State University
Albert Reid, Youth Aquaculture,
Extension Agent
804-524-5495
areid@vsu.edu

Fax: 804-524-5245

Organizational Youth Program
Shakespeare Tackle
Roxanne Coleman, Marketing Services
Manager
1-X146
roxanne@shakespeare-fishing.com
Fax: 803-754-0707.

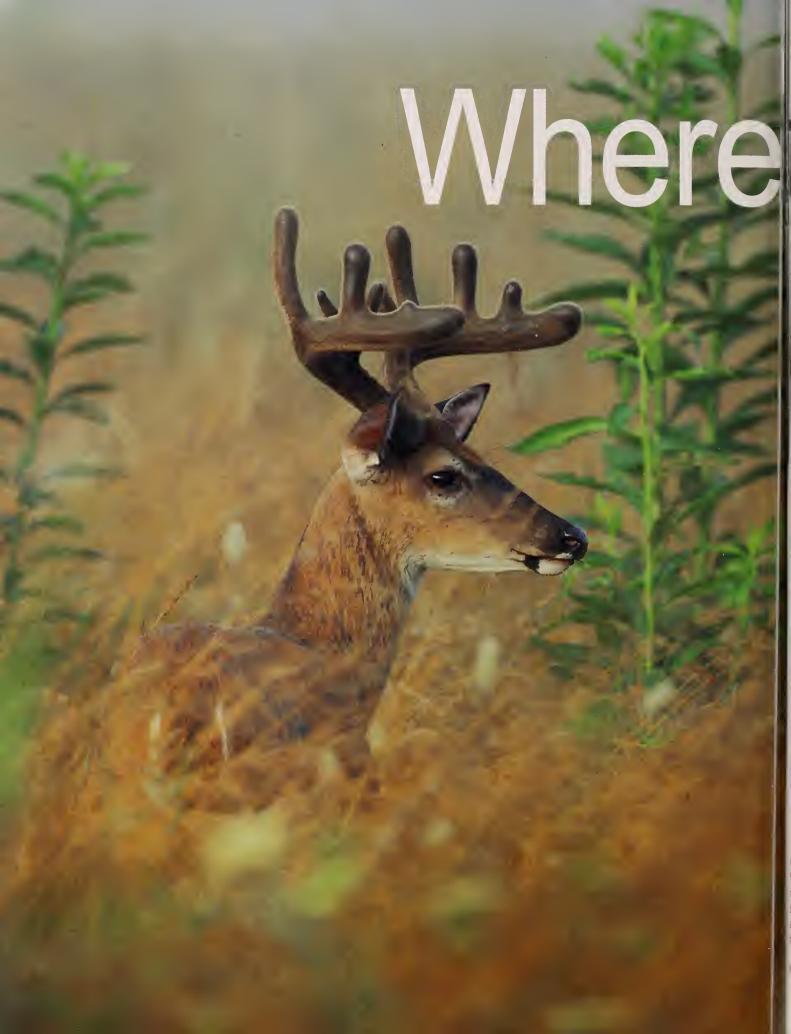


year through Virginia State University's Aquaculture program. The students are challenged to design and set up culturing stations, raise the fry to adult size in the classroom, and market their fish.

While all this was going on, another classroom of students from Virginia Randolph Community High School in Henrico County, was about to enter the equation. Stu-

governmental agencies working together to ensure that people have a future with fishing.

Mission accomplished. We now know that we can provide a new form of close-to-home fishing opportunities for people in the metropolitan areas. To do this, however, requires the development of cooperative partnerships between the private and public sector.



the

As any hunter knows "location, location, location" is important to any successful hunting trip. A little research and scouting before heading outdoors can pay off in big ways.

by Jack Randolph

A successful hunting season depends on many factors, but doing your homework ahead of time may greatly improve your success.

t is written that if you give a person a fish, you have fed him for a day, but if you teach him to fish you have fed him forever. Strangely enough what follows is not about fishing. It is about hunting, or, more precisely about looking ahead and forecasting the coming hunting season.

We all have read hunting forecasts and I'm guilty of writing dozens of them, but I must admit that I'm not very proud of any of them. The main problem, as I see it, is each person approaches hunting differently. He or she has their own expectations, desires, and limitations. What can be a great hunt for one person, can be a bummer for another. There are lots of things to consider, so, with this in mind it occurred to me, rather than put together another hunting forecast, that I let you do it, so that it can better fit your needs.

Let's start with you. How much time, money, and travel do you want to invest in hunting this year? Are you free to go anywhere or do you hunt the same place every year, because you have access to the land, belong to a club, or simply personal preference? Let's start out by saying that your interest is confined to a cer-

tain area and involves mainly deer

and turkey.

Now, you may have hunted the same ground for years, but have you really studied the area? Do you know the history of the area, such as the numbers and sex of the deer and turkeys bagged, over the last 10 years or so? What about the weather conditions over the years? What factors affected the area? Also, what were the season lengths and limitations over the study period?

Harvest data is readily available from the Virginia Department of Game and Inland Fisheries (VDGIF), but it seldom goes below the county level. You can easily determine how many deer were bagged in a certain county by year,

but unless your club or the landowner kept records there is no way of knowing how many deer were taken in the areas you hunt. Often we have to settle for countywide data, but we can temper it with some knowledge gained through experience.

The countywide data will tell us how many acres of deer range are available in that county. Next, we can obtain data that tells us how many deer were bagged each year. By dividing the acreage of deer range into the total deer bagged we ple, warm weather discourages hunter participation and, if you hunt with dogs, the dogs do not run well. Rain often affects the number of hunters turning out. Ice or snowstorms can also play havoc with the hunt, particularly if the storms are severe and most if they occur during the antlerless deer season. Cold, rainy weather is terrible for turkey hunting as well. When you look at the hunting history of an area you must factor in the effects of weather. Weather is also an important consideration in the spring. Wet and cold

hunters, predators, and automobiles. The status of the mast crop may determine where within the hunting lands available to you, one might hunt with a greater chance of seeing game.

Disease: Has there been any evidence of disease in the area? Last season were deer lost to Hemorrhagic Disease disease or were deer found with abnormal hooves? The main effect of disease would be a decrease in numbers in the area.

Local conditions: Were there any clear cuts in your area, since last sea-



Squirrel hunting during the early part of the hunting season offers a chance for checking local conditions. It's also a good time to scout for future deer, bear, and turkey hunting locations.

can determine how many deer were bagged per acre each year. This is particularly useful if you are seeking the county with the most dense deer population. But, before you compare results from year to year, you must factor in several things.

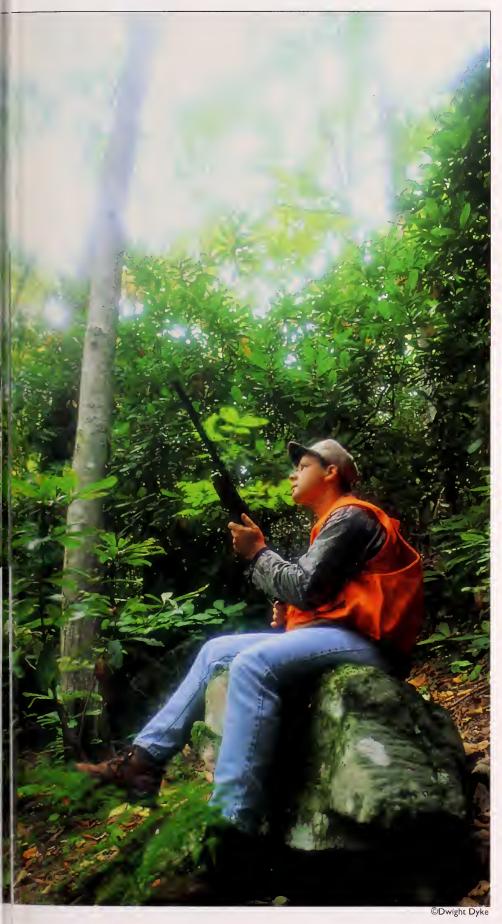
For example, since Virginia sets its game laws every two years. We then divide our research into two-year blocks, pairing the years in which the laws stayed the same. If the county had a three day antlerless deer season for one, two year block and a six day antlerless deer season the second two years, we will probably see a corresponding increase in antlerless deer killed. However, other things must be considered.

Weather: The deer harvest can be affected by the weather. For exam-

weather results in the loss of nests of ground-nesting birds and can cause mortality among young birds, and even rabbits. In the case of quail, a poor nesting season will affect the following hunting season, but with turkeys, the loss of young birds will be felt the second season following the poor spring.

Mast crop: Food for wildlife includes such things as acorns, nuts, seeds, berries, and fruit. If we have plentiful mast the animals will winter well and they have a good chance of reproductive success. On the other hand, a good mast crop year keeps the game in the woods and less accessible to hunters. Conversely, a poor mast crop forces the wildlife to roam in search of food and makes it more vulnerable to

son? How much acreage was lost to clear cutting? What about areas that were cut a few years ago? How far along is the new growth in creating great new habitat? Is some of this new growth so overgrown with briars and undergrowth that it is difficult to hunt? Have farming practices changed? Has cotton replaced soybeans and corn? Has wildlife cover been lost to suburban development? Have new roads changed the nature of the area? In the case of small game, has forest growth changed small game habitat into mainly big game habitat or forest game habitat?



Local regulations: Has the locality changed laws regarding hunting? Have certain areas, such as military reservations or wildlife management areas, changed their hunting regulations. For example, many of the military reservations have tightened up on hunter safety training requirements, discouraging hunters who didn't bother to obtain certification of safety training. The result is fewer hunters on the reservations and very uncrowded hunting conditions.

If you haven't hunted in Virginia



very much and have no local contacts, the best approach is to look for areas where you can gain access to hunt. In many parts of the state the land is leased by clubs and it is very difficult to gain access. However, it can be done. Timber companies often offer individual permits to hunt certain tracts of their land. Often, it is a good idea to narrow your search by selecting several counties with high deer or turkey harvest numbers. Then, within those counties, seek out lands on which permits are available or public lands to which you may gain access. It has been my experience that the areas closest to the main rivers and streams offer the best hunting success.

Probably the best rule of thumb in

AUGUST 2000

measuring hunting prospects is to look at the success of crops in the area. If the farmers had a good year, the odds are good that wildlife has fared well, too. But, no matter what the odds are, you're hunting success boils down to doing some simple homework and actually taking the time to spend in the outdoors experiencing the wonders of nature.

Jack Randolph retired as the Assistant Director of the Virginia Department of Game and Inland Fisheries in 1991 and has spent over 50 years traveling the world hunting and fishing.

1999 Deer Season Update

by Matt Knox, Wildlife Biologist and Deer Project Leader

The 1999 deer season will be remembered for poor deer hunting weather and Hemorrhagic Disease (HD). Yet in spite of this double whammy, Old Dominion deer hunters still reported a deer kill of 189,572 deer. The weather and HD were so bad; the mast crop was nearly forgotten. These three simple variables, mast crop, weather, and HD have a major impact on deer hunting in Virginia.

Lesson one, find the food. Outside of the rut, if you find the food, you will find the deer. If hard mast is available, the food will be acorns, especially white oak acorns.

Lesson two, pray for cool weather. Warm weather has gotten us the last two years in a row. Many hunters will tell you the deer don't move during warm weather, that may be true, but neither do deer hunters.

Lesson three, learn about HD. Let it suffice to say that HD is a viral disease of deer endemic to Tidewater and Piedmont deer herds. HD is not contagious to humans and HD can have a major impact on deer harvests.

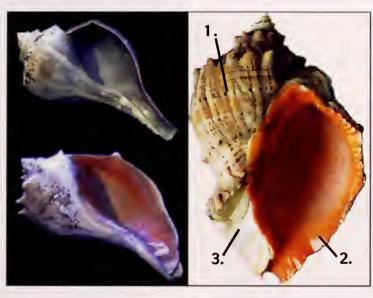
If it rains, is cool, and HD does not strike too hard, the 2000-2001 deer season should be good. \Box



1999 Hunting Season Top 10 Deer, Bear, and Turkey Harvest Figures

Deer			
Loudoun	6,665	Rappahannock	51
Southhampton	5,455	Alleghany	48
Bedford	5,408	Nelson	42
Fauquier	5,067	Rockbridge	39
Rockingham	4,241	Highland	38
Shenandoah	4,233		
Pittsylvania	4,159	Turkey	
Bath	4,024	Bedford	409
Albemarle	3,981	Pittsylvania	279
Franklin	3,673	Amelia	271
		Halifax	267
Bear		Bath	254
Rockingham	118	Botetourt	251
Page	78	Scott	224
Augusta	77	Cumberland	218
Madison	55	Franklin	216
Bath	53	Augusta	215





Alien Invasion in the Chesapeake Bay

Scientists from The College of William and Mary and the Virginia Institute of Marine Science (VIMS) are seeking your help in identifying a potential threat to the Chesapeake Bay. The veined Rapa whelk (Rapana venosa), which is a native to the Sea of Japan has been found in the waters of the Chesapeake Bay region. It has a voracious appetite for clams, oysters, and mussels and poses a threat to these important bay species, as shown by samples taken by the VIMS Trawl Survey Group.

What should you do if you find (or think that you have found) an adult veined Rapa whelk? Look at the pictures (above) of the adult veined Rapa whelks and compare these pictures with pictures of adult local whelks and with your specimen. Two whelks that are common in local waters are shown above: Channel whelks (upper left) and

knobbed whelks (upper left). Rapa whelks (right) may be distinguished from local whelks by:

- 1. The black veins that run horizontally through the shell.
- 2. The bright orange color, visible around the opening.
 - 3. The broad, flat columella.
- 4. Rapa whelks are almost as wide as they are tall.

If you find a veined Rapa whelk, please keep it alive and call Roger Mann (804) 684-7360 or Juli Harding (804) 684-7302 to report it. For more information on Rapa whelks and the VIMS Rapa Whelk Research and Bounty Programs, visit the Rapa Whelk web site at: www.vims.edu/fish/oyreef/rapven.html.

Vernal Homecoming by Emily Grey

This past spring, during the second weekend in May, marked the sixth International Migratory Bird Celebration hosted by Chin-

coteague National Wildlife Refuge (CNWR). Sponsored by 15 entities, this popular annual event focused on amplifying people's awareness on Virginia's Eastern Shore as a paramount bird habitat and birding Mecca.

Phenomenal numbers and species of avifauna travel along the Atlantic Flyway during spring and fall migration. Thousands of shorebirds, including 30 species, feed, water, and stage at CNWR and Eastern Shore of Virginia National Wildlife Refuge at these crucial times before winging toward their ultimate destinations.

The barrier island of Assateague is globally designated an International Reserve. The Western Hemisphere Shorebird Reserve Network honors this strategic ecosystem for its vital role in conserving shorebird habitat. Areas like Assateague, Fisherman, and other barrier and inland isles and the Eastern Shore mainland are imperative to the survival of the aforesaid migrants, waterfowl, neotropical songbirds, and other avian species.

The festival commenced Friday evening with a reception at The Chincoteague Center. Renowned photographer Jim Clark, from the U.S. Fish and Wildlife Service National Conservation Training Center, delivered a nature musical slide presentation.

"Early birds" participated in the 5K Fun Run/Walk the next morning. Ongoing Saturday and Sunday family events took place at CNRW and in the Town of Chincoteague. Versatile activities like wildlife mural decorating, interpretive dance, canoe trips, and an owl hoot,



Back row l to r: Britsh outdoor writers, Brian Unwin, Brian Woollard, Scott Neil, and Geraint Smith. Front row, l to r: Brian Jackman and Dave Cromack.

occurred at or near Eastern Shore of Virginia National Wildlife Refuge.

Children's laughter pealed while building bird boxes, designing tshirts, and receiving a painted makeover. There was even a special youth bird walk along the beachfront.

Local craftsmen and artists displayed beautiful wildlife paintings, sketches, and decoys beneath a huge tent. Folks meandered from salt marsh interpretations to soap carving demonstrations to intracoastal kayak ventures. Auditorium programs included shorebird identification and a fauna and flora slide show by world famous photographer, Leonard Lee Rue III.

This year six British travel writers joined in the fun. The group excitedly spotted a peregrine falcon, gullbilled tern, glossy ibises, and sundry shorebirds like dunlins, ruddy turnstones, and pectoral sandpipers in CNWR's protected impoundments, marshes, and coast. Captain Barry ferried this overseas' party, representatives of Virginia Department of Game and Inland Fisheries, Chincoteague's Chamber of Commerce President, and this writer around Chincoteague Bay to the island's southern tip. Our guides enthusiastically pointed out landmarks and remote Pelican Island, while spinning some local yarns. Everyone relished this mission of good will in the name of nature.

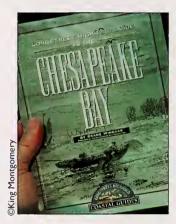
If you're an avid birder or just getting into this fun and educational sport then don't forget to mark you calendar for next years International Migratory Bird Celebration. It's one weekend that's sure to have everyone flocking in for a good time.

1999 Angler Hall of Fame

The following individuals were inadvertently omitted from the 1999 Angler Hall of Fame list that was published in the May 2000 issue of *Virginia Wildlife*.

Master Angler II Gary Harmon Jerry Simms

Expert Angler - Largemouth Bass Elwood Lam



Book Review by King Montgomery

The Longstreet Highroad Guide to the Chesapeake Bay by Deane Winegar, 2000, Longstreet Press, 336 pages, paperback (7 x 9 inches), \$18.95.

Deane Winegar has done it again! After her 1998 book the *Longstreet Highroad Guide to the Virginia Mountains* written with husband, Garvey, won the coveted Virginia Outdoor Writers Association Excellence-in-Craft Award, her new guidebook to the Chesapeake Bay will no doubt win its share of awards as well.

This is the book you need if you visit the Bay and its coastal areas in

Virginia or Maryland. The helpful appendices, for example, list outfitters, guides, and outdoor suppliers; conservation and outdoor organizations; and even the location of every lighthouse in and along the Bay.

Like the other books in the Highroad Guide series, the Chesapeake Bay guide is unique in that it provides extra benefits for the coastal enthusiasts: more than 20 maps, detailed descriptions and extensive information on the natural history, geology, flora, and fauna of the coastal region. And, while the book is geared toward outdoor pursuits, there is also extensive coverage of the many things to see and do in port cities such as Virginia Beach, Norfolk, Newport News, Annapolis, Baltimore, and Ocean City. It also includes restaurants, lodging, and night life information. Something for everyone, and it is all clearly and entertainingly presented in a super book.

For an autographed copy of the *Highroad Guide to the Chesapeake Bay*, contact the author at 1-800-782-9579 or send a check for \$22.50 to Deane Winegar at 180 North Bear Den Road, Waynesboro, VA 22980. The Virginia Mountain Guide is also available at this phone number and address.

Report Wildlife Violations 1-800-237-5712

Virginia Outdoors Weekend

September 29-October 1, 2000 Hungry Mother State Park Marion, Virginia

If you love the great outdoors and are looking for a way to have a fun filled weekend in the beautiful mountains of southwestern Virginia, then don't miss this wonderful opportunity. The Virginia Outdoors Weekend is open to individuals, couples, and families who want



to learn more about conservation, outdoor skills, ethics, and safety.

A cooperative effort between the Virginia Department of Game and Inland Fisheries, the Department of Conservation and Recreation, and participating sponsors the Virginia Outdoors Weekend will host a variety of programs ranging from archery, camping, canoeing, campfire cooking, falconry, fishing, firearms safety, orienteering, outdoor photography, wilderness survival, and tracking.

For more information and how to register write to: The Virginia Department of Game and Inland Fisheries, Virginia Outdoors Weekend, P.O. Box 11104, Richmond, VA 23230. Also visit our Web site at www.dgif.state.va.us or call (804) 367-6351.

Write On Target

Lee Watts, Information Services

Migratory dove season begins next month. All migratory bird hunters are required by federal regulation to register with the Department's Harvest Information Program (HIP) by calling the following toll free number: (800) 938-5263. The automated answering system requires you to enter information using your touch tone phone. A toll free Help Line has been established and callers can get assistance by calling (888) 764-7343.

Last hunting season, 43,810 hunters registered with the Departments HIP service. Of that total, 27,922 hunters identified themselves as dove hunters and 11,250 as duck hunters. Other statistics of note are 7,577 goose hunters, 1,632 woodcock hunters, 2,576 brant hunters, 1,006 snipe hunters and 683 rail hunters. The Department is pleased with the cooperation and response of Virginia migratory bird hunters who registered during the second year of the program.

To better assist hunters, here are a few of the most commonly asked questions:

Can I use my number from last year? Do I have to re-register?

Yes, you must re-register each year and be issued a valid number for the current hunting season. You need to register each year so that we have accurate accounting of the number of migratory bird hunters. In addition, you must also register in each state in which you hunt migratory species.

I am exempted and not required to have a hunting license. The system is asking for a 2 to 6 digit license number. What do I enter?

Enter the number "00." This will show that you do not have a license. This is also required for youths under the age of 12 who hunt migratory birds and all other persons who are exempted from having to purchase a license.

I have a lifetime license. The system is telling me that my number is not valid. Which number on the lifetime license is my hunting license number?

The older style licenses were issued with an embossed red serial number. The new computer printed licenses display the number in the upper right-hand corner of the license, just to the left of the date of issue. But sometimes the system will not take these lifetime license numbers. In these cases, simply use "00" as the license number.

Why do we have to register? What is the purpose of HIP?

The program will expand and improve our database for harvest surveys of all migratory game birds. This will enable the Department to improve management of migratory species and enhance our ability to provide a better hunting opportunity while protecting hunting from potential legal challenges.

Can I do this online?

Yes, go to the Department's main Web site at www.dgif.state.va.us and take the Hunting link. At the very top of the next page will be a link to the HIP Main information page. On this page, you will find the link to register. After entering you name, address and license number and answering questions concerning the number of different species of birds harvested, you will be issued your hip number. Either print off the page or record the number on your annual license and you are ready to go afield.

A special card has been designed for lifetime license holders to use when registering. But you can simply use a piece of paper to record the 10 digit HIP number. This number must be on your person while afield. To request a wallet please call the Information Desk or request one via email at the address below.

Have a question? Need a regulation clarified? Need to know more about what the Department does? Send your question or inquire to:

WriteOnTarget P. O. Box 11104 Richmond, VA. 23230-1104

You can reach us by calling (804) 367-9369 or via email at **WriteOn-Target@dgif.state.va.us**. Your question could appear in a future issue of *Virginia Wildlife*. □

Invest in the Future Lifetime Hunting and Fishing Licenses (804) 367–1000



The Water

by Jim Crosby, Region 4 Boater Education Coordinator

Why Knots & Lines?

he last thing most recreational boaters think of is their knots and lines—you know, those things that protect people and their boats. Marlinspike seamanship—the art and use of ropes and lines afloat—is a missing skill among some recreational boaters. If you don't believe me witness a sad comedy. Spend some time observing their work at the launch ramps and docks. You'll see everything from boats floating away from their owner's trailers without a retrieval line to others being tied to the dock with line stolen from the nearest fishing pole.

There are a few lines that should be basic equipment for every recreational boater—more, or less, depending upon the size and shape of the vessel. First, and most important, is the bow line or painter. This line should never be longer than the vessel so it can't become entangled in the prop from falling overboard. The painter is used to secure the vessel when docking or maintain control while launching. In a one-person launch, it's a good idea to tie the painter to the trailer so the boat will not float away out of control. This could preclude an impromptu swim.

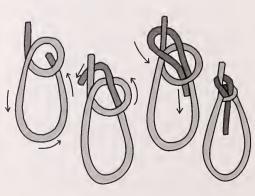
The next, most important, line to have aboard is your dock, or mooring, lines. You should have a minimum of two and four are best—six or eight under certain circumstances. They should be approximately the length of your vessel, or slightly shorter, and have an eyesplice in one end. One of these can be used as a painter. A typical, shortterm tie up should involve the use of bow and stern lines ran off at approximately a 45-degree angle to the dock. A heavy weather tie-up dockside could involve the use of six or eight dock lines—a bow line, a stern

line, two breast lines and two to four spring lines. These will keep the vessel addressed up to the dock yet allow for the rise and fall of the hull on tides and waves.

A slip will require four dock lines to secure the vessel fore and aft on both sides. Two or more spring lines will keep the vessel centered within the slip to prevent rubbing and chafing. An excellent reference on dock lines and their use can be found in any recent edition of *Chapman Piloting Seamanship & Small Boat Handling*. Any recreational boater who is not familiar with Chapman is missing a great opportunity to hone his, or her, boating skills.

Another basic for the recreational boater should be a few knots that can be tied automatically from memory with no more thought than is needed to tie your shoes.

Most small boats have cleats installed, fore and aft. Securing a line to a cleat properly is just good seamanship, yet many fail to do it correctly leading to trouble later. A line should approach the cleat at an angle to the horns, take a complete turn around the base passing under both horns, and be secured by making a figure-eight on the horns. Two figure-eights are sufficient; more add no security and only lengthen



Tying the Bowline.

the undo time later. You can finish off the figure-eights by turning the last hitch over and tightening it down to bind against itself. This is called a weather hitch and makes the tie-up pretty secure. That first turn all the way around the base puts the stress on the fastners and not the ears of the cleat.

The bowline is known as the king of knots. Once learned, after much practice, it is easy to tie, never slips or jams, and can always be untied easily. The bowline puts a fixed loop in the end of a line and its uses are limited only by one's imagination.

The clove hitch is very useful because it can be made up in your hands while approaching a dock, dropped over the piling upon arrival and pulled taut to secure. For long-term security, Chapman recommends that a half-hitch be added to the standing part. I recommend another technique. Once the vessel is addressed to the dock and the clove hitch finally adjusted, I wrap the remainder of the bitter end around the piling until the excess is totally off the dock. I take a tuck under the last turn and pull tight to secure. This makes a very secure attachment to the dock and does not leave excess line to trip someone. Once the tuck is removed, the line spirals off the top right down to the clove hitch for easy removal.

Virginia Department of Game and Inland Fisheries certified Boating Instructors cover these and many other boating skills in their classes. You are invited to contact the Department for additional information. Call (804) 367-1125 or use the Web address at www.dgif.state. va.us. For questions, tips, or suggestions Jim Crosby can be reached through the Department or by email: jimcrosby@aol.com. □



Wade in With Patience

LURP...KERSPLOSH...'I'm sure the sound echoed across the river and into the next county. It was a half hour before dawn as I slogged through the thick, stinking, black slime of a mud flat. Carrying my photo blind over one shoulder and a folding chair and tripod over the other, I oozed and gooshed my way to a spot near a dilapidated old pier.

For the past few days, I'd peered through tall marsh grasses at the river's edge watching blackcrowned night herons, great blue and little blue herons fishing the early morning and late afternoon low tides. I had tried to photograph them from the shore, but the longlegged waders never seemed to venture close enough for decent closeups, even with my long telephoto lenses. But, they did get close enough to the pier! Every time I arrived for my spying sessions, an egret or heron would be perched on the broken pier. So, the logical thing to do, it seemed, was to get near the pier if I wanted to get near the birds.

That was easier said than done. "Slurp...kersplosh...slurp...kersplosh..." Finally in position, I situated myself so that the sun was behind me, thus lighting my subjects directly. I placed myself close enough for good, tight, full-body shots with my longest lens, but far enough away so that, hopefully, the release of the shutter wouldn't scare the birds. Cringing, I set my immaculately clean Leonard Rue blind deep into the gooey river bottom. Then, I took the folded metal and plastic off my shoulder and contorted it into a chair, relishing the thought of spending the rest of the day with my feet sunk into a huge pre-cut mud pie. Yummy.

Sinking the chair into place, I then pulled my tripod from it's bag, extended the bottom legs out full and pushed them down into the mud.

The sun was beginning to brighten my surroundings, as I picked up my camera a sneaky black-crowned night heron landed on the pier. Since I was shooting with a low ISO (ASA) film, Fuji Velvia rated at 50 ISO, it still wasn't bright enough to hand hold my brutish lenses, so all I could do was watch as the rubyeyed bird scoured the mud flats for lively hors d'oeuvres.

I'd hardly gotten a chance to settle in before another great egret landed on the pier. Fumbling to place the camera/lens combination on the tripod, I slipped it carefully through a shooting port, watching to make sure the tall, white creature wasn't spooked by my actions. As I put my eye to the viewfinder and placed my finger carefully over the shutter release, the great egret took flight for parts unknown. Well, that was O.K. because I had plenty of great egret pictures anyway.

Now I had a moment to catch my breath. Before anything else arrived, I quickly organized everything in the blind. This particular blind has pockets in the walls, so I dropped in rolls of film, a light meter, notebook, pen and a paperback novel my mom had given me. NOW, I was ready!

About an hour later, I hadn't seen anything else besides a few gulls and ski boats. The light was growing brighter and in another hour or so it would be too contrasty for good

photographs. Thinking about how the morning had gone, I looked down at where I thought my soggy feet should have been and noticed the tide had been coming in. It was getting close to my knees and the bottom of my folding chair.

As is usually the case, if anything can go wrong, it will—"Murphy's Law." And in wildlife photography, if it can go wrong, expect it . This is not pessimism, just plain fact. But, the one reassuring thing is that if you're patient and persistent the laws will swing in your favor. I didn't get any pictures that day but the next day I went through the same ritual and it paid off! I captured beautiful images of black-crowned night herons, little blue herons, cattle egrets, great egrets ...as well as a cold.





by Joan Cone

Saltwater Fish For Summer

D uring the summer, many Virginians will be catching croaker, sea trout, spot, flounder, bluefish, and Spanish mackerel. These are all tasty fish, can be filleted, and generally substituted in recipes. These species provide excellent nutrition while being low in fat. An extra bonus is that croaker are now bigger than ever and when filleted, cook more evenly.

If you are unable to acquire freshly caught saltwater fish, look for them in an independent fish market or in the seafood section of your supermarket.

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Menu

Fish Dip

Cornmeal Crusted Croaker On Asparagus With Fresh Tomato Sauce Swiss Mashed Potatoes Peachy Berry Crisp

Fish Dip

This recipe was sent to me by Carol and Woody Kessler of Portsmouth VA.

1/2 cup low fat mayonnaise 1/2 cup chili sauce

1 tablespoon grated onion

1 tablespoon chopped sweet pickle relish

4 radishes, finely chopped Cooked, flaked striped bass

Mix thoroughly first 5 ingredients. Fold in enough flaked striped bass for desired consistency. Chill overnight. Serve with assorted raw vegetables.

Cornmeal Crusted Croaker on Asparagus With Fresh Tomato Sauce

This recipe, slightly revised, is by Chef Dale Reitzer of Richmond, VA. 4 large croaker fillets, or other fillets Flour
2 eggs beaten
Cornmeal
Canola oil
1 pound fresh asparagus, woody
ends removed
Olive oil
Salt and pepper

Dust fillets in flour. Dip in beaten egg and then in cornmeal. Heat about ½ inch of oil in skillet until hot, but not smoking. Fry fillets for about one minute per side until they are golden brown. Place on paper towel and keep warm in oven until serving time. Cook asparagus briefly until crisp tender in covered skillet with ½ inch boiling water. Drain asparagus and reserve ¼ cup cooking water. Toss asparagus with olive oil, season with salt and pepper and set aside.

Fresh Tomato Sauce

2 ripe tomatoes 2 teaspoons butter 2 shallots, chopped 1/4 cup white wine 1/4 cup asparagus stock 1/2 teaspoon dried basil

1 tablespoon olive oil

Salt and pepper

Stem and chop tomatoes. Heat butter in saucepan and add shallots. Cook until soft. Add wine and reduce over heat until about one ounce is left. Add tomatoes to pan, ½ cup asparagus water and basil. Bring to boil and simmer about 10 minutes to reduce sauce until thick Season with salt and pepper. Finish by whisking in 1 tablespoon olive oil. To serve: On four warmed plates, divide asparagus into four servings. Lay cornmeal crusted croaker on asparagus and spoon tomato sauce around the asparagus. Garnish with chopped parsley, if desired. Serves 4.

Swiss Mashed Potatoes

2 pounds russet potatoes, peeled and cut into 2-inch cubes (5 cups) ½ cup milk

4 tablespoons butter

1 cup freshly grated Swiss cheese Salt and freshly ground pepper to taste

In a large saucepan, cover the potatoes with cold water. Bring to a boil, partially cover, and cook for 20 minutes or until tender. Scald milk. Drain the potatoes and mash them within the cooking pot with a potato masher. Turn on the heat and whisk the hot milk and butter into mashed potatoes. Turn off the heat, fold in grated Swiss cheese and season with salt and freshly ground pepper. Serve immediately. Serves 4.

Peachy Berry Crisp

½ cup wheat germ, any flavor

½ cup oats, uncooked

1/3 cup firmly packed brown sugar

1/4 cup flour

1/4 cup (1/2 stick) butter or margarine, melted

1 teaspoon ground cinnamon

5 cups peeled, sliced fresh peaches (about 6 large peaches)

2 cups fresh blueberries

1 tablespoon flour

Vanilla low-fat yogurt or frozen yogurt

Preheat oven to 375° F. Combine wheat germ, oats, sugar, ¼ cup flour, butter and cinnamon; mix well. Set aside. Combine fruit and 1 table-spoon flour, tossing to coat. Spoon into 8-inch square baking dish. Top with wheat germ mixture. Bake 30 to 35 minutes or until peaches are tender. Serve warm or at room temperature with yogurt, if desired. Makes 9 servings.

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story and illustration by Spike Knuth

Pine Warbler

One naturalist labeled it as "the gentle, modest, minstrel of the pines." Gentle because it moves about calmly, modest in that its plumage is not gaudy, and a minstrel because of its simple trilling call. Indeed, one of Virginia's unique birds is the pine warbler (Dendroica

pinus). It's unique in that it is one of only a few warblers that breed and winter in the Old Dominion. Only the yellow-rumped warbler is hardier. The pine warbler is unique too, because it is the only warbler that sings most of the year while others serenade only during breeding.

A third factor that sets it apart is its affinity to pines, especial-

ly during breeding.

Seldom is this bird found away from open pinewoods or barrens. I recall a July weekend campout to North Bend Park, U.S. Army Corps of Engineer's Campground on Buggs Island Lake, when the pines above us were alive with pine warblers. Even though there were a few oaks in the mix, they would seem to avoid the deciduous trees

and move only from pine to pine. The warbler pine moves slowly over trunks and branches of pines searching carefully for insect larvae and eggs. It is much like a nuthatch or brown creeper in its movements and, in fact, Audubon took note of this habit and named it the "pine-creeping warbler"! In addition to feeding in the trees, pine warblers will fly out to catch flying insects, like other warblers, and while they are mainly insectivores, they will eat wild berries, such as poison ivy, grape,

The pine warbler

and bayberry.

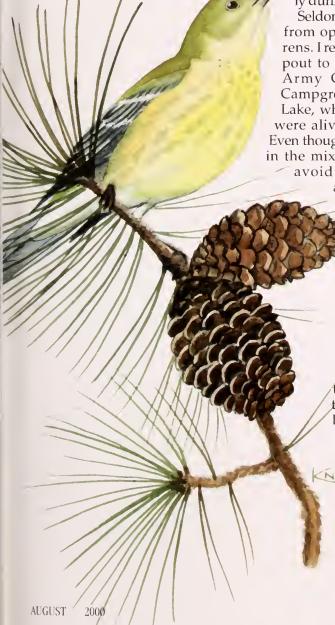
measures about 5½ inches in length. The adult male is basically olivegreen above, with yellowish under parts, and conspicuous white wing bars. Its breast and flanks are faintly streaked with olive-green or dusky. The female is similar, but duller, all around and juveniles are more brownish above and buffy below. Its call is a series of short, rapid notes, much like a chipping sparrow or the dark-eyed junco's spring song, but a little slower.

Pine warblers may nest as early as March in Georgia, having as many as three broods, and as late as June in the north. Here in Virginia they nest in May and could have two broods in a season. The nest is normally built in a pine, although occasionally cedar or cypress are used. One study showed that up to 15 species of pine were used for nesting. The nest may be anywhere from 6 to 80 feet up, but most of the time it is built high up. One nest in South Carolina was measured at 135 feet up!

The nest is built on a horizontal limb and constructed of strips of bark, plant fiber, leaves, small twigs, pine needles, and insect and spider silk, then lined with hair, fur, and feathers. An average clutch is four eggs. They are dull white to pale grayish-lilac in color, wreathed in

deep brown or lilac.

Come winter, many will wander to the southern portion of their breeding range, moving about in small flocks, and often joining titmice, chickadees, and nuthatches. However, many will stay with us, especially if weather is mild and food is plentiful, and may even visit our backyard feeders to dine on bread crumbs, cornmeal, nutmeat bits, tiny seeds, and especially beef suet.





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